

Application No. 09/762,225

Title: A DEVICE FOR AND A METHOD OF DETECTING A DISEASE OF THE UDDER OF AN ANIMAL

Response to Office Action dated August 19, 2004 and request for reconsideration

Remarks

In the Office Action dated August 19, 2004, the examiner indicates that there is a lack of unity of invention requiring restriction and election of species. Applicants respectfully traverses this requirement, and submits that both groups of claims are linked by a common special technical feature and patentably distinguish over the prior art.

The present application has suffered a particularly tortured fate in the national phase of examination. First, a notice of abandonment was issued in error on May 23, 2002 and subsequently vacated in June 2002. Then all of the claims were examined and an office action issued April 14, 2004. Applicant promptly responded on July 6, 2004. After initially examining all of the claims, the most recent Office Action now requires an election of species, over three years after the filing date and after a first substantive office action.

At the outset, Applicants note that the claims of the present application have been previously been reviewed on two occasions for unity of invention. First, in the PCT examination process, the International Preliminary Examination Report contains no indication of lack of unity. Thus, in the first instance, unity of invention was found by an independent reviewing authority. Then, in the first office action in the U.S. Patent and Trademark Office, the examiner reviewed all claims and did not impose a lack of unity requirement for restriction and election of species, but rather a search was common to both the device and method claims sufficient to permit examination. As provided by 37

Application No. 09/762,225

Title: A DEVICE FOR AND A METHOD OF DETECTING A DISEASE OF THE UDDER OF AN ANIMAL

Response to Office Action dated August 19, 2004 and request for reconsideration

C.F.R. § 1.499, unity of invention, if it was lacking, would have been raised either in the PCT examination process or prior to examination on the merits of the application. The reasoning behind the restriction requirement is unclear and conclusory. Applicant will endeavor to respond as best understood.

The present office action also raises the van den Berg 5,704,311 patent. Applicant believes that this citation does not establish a lack of a special technical feature common to both the device and method claims of the present invention. Both the device claim 8 and the method of claim 8 are directed to the detecting of a disease of an udder of an animal. This is an indication that the claims concern the same technical field, as previously found both in the PCT process and in the first office action in the national phase. Moreover, the corresponding means and measures by which the problem is addressed is common to both of the independent claims 1 and 8. Both claim 1 and claim 8 specify the technical features saying that the milk quantity from the two individual teats are to be determined, that the two determined milk quantities are to be compared to each other, and in the case of a deviation, it is decided whether the animal is suffering from a disease. Clearly, the claims share common special technical features.

The van den Berg 5,704,311 patent discloses an apparatus and a method for milking animals. The apparatus includes a mastitis sensor 25 for sensing if the milk which is extracted is infected by means of a conductivity measurement. In column 8, from line 22 forward it is stated that "[s]ignals M from individual milk flow sensors 25 are applied to this computer 10, each of these signals S

Application No. 09/762,225

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being indicative of the milk flow in a relevant milk line 19. In addition, signals M supplied by each of the mastitis sensors are transmitted to computer 10. In the present embodiment, the mastitis sensors are milk conductivity sensors." The signals supplied by these sensors are a measure of the conductivity of the milk. Thus, the signals provided by the sensor 25 are transmitted to a computer in which they are compared to progressive, weighted or non-weighted average of the milk conductivity recorded during previous milking turns, whereupon, when the last measured milk conductivity exceeds the progressive, weighted or non-weighted average to an excessive extent, an attention signal is displayed. This signal can then be used for determining if the animal is infected.

Consequently, the comparison made by van den Berg includes a comparison with a preceding milking operation. In contrast, the present invention as defined by the apparatus of claim 1 and the method of claim 8 relies on a comparison of a parameter from one teat of the animal with the corresponding parameter of another teat of the animal. These parameters are obtained during the same milking operation. Thus, it is not necessary to delay a comparison of values from one milking operation to the next such that an initial baseline milk conductivity value is required. Moreover, it is not necessary to store data corresponding to the parameters for future comparisons. Instead, the determination of whether an animal is infected or not can be made immediately by the expedient of comparing a parameter from two different teats during the instant milking operation.

In comparing this novel feature of the independent claims 1 and 8 with the teachings of van den Berg '311, it is manifest that there is no teaching, suggestion or motivation in the van den Berg

Application No. 09/762,225

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reference to detect udder disease by the comparison of parameters between two different teats during a single milking operation. Moreover, there is no motivation or suggestion in the prior art to modify the van den Berg teachings to anticipate or render obvious the invention as set forth in the claims of the present application. Consequently, the claimed invention of the present application is novel and provides both a method and a device by means of which it is possible to establish whether an individual teat and udder segment suffer from a disease such as mastitis in an easy and reliable manner.

Application No. 09/762,225

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Applicant has provisionally elected Group I, claims 1-7 and 15-17, as required, but with traverse. Applicant earnestly submits that all claims of the present application are now in condition for allowance and early issuance of the Notice of Allowance is courteously requested. Should the Examiner have any additional issues which may be resolved by a telephone conference, they may be addressed to the undersigned at 1-800-445-3460. Any additional fees necessitated by this submission may be charged to deposit account 19-0522.

Respectfully submitted,

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